

dimensional double refractive indices are measured, and the obtained refractive indices N_x , N_y , and N_z are used for calculating the double refractive index, wherein N_x is the refractive index in the delayed phase axis direction within the film surface, N_y is the refractive index in the advanced phase axis direction within the film surface, and N_z is the refractive index in the layer thickness direction, while "d" represents the film thickness (in nm).

$$R_0 = (N_x - N_y) \times d$$

$$R_t = \{(N_x + N_y)/2 - N_z\} \times d$$

Inner surface retardation R_0 is preferably less than 20 nm, is more preferably less than 5 nm, and is most preferably between 0 and 1 nm.

Further, a film having a retardation value R_t in the film thickness direction of 30 to 300 nm is preferably employed and specifically a film having 50 to 150 nm is preferably employed.

In the cellulose ester film of the present invention, those, which satisfy the relationship described below, are most preferably employed:

$$P \leq 1 - \sin^2(\theta) \cdot \sin(\pi R_0 / \lambda)$$

wherein P is 0.999, θ is the angle of the delayed phase axis direction within the surface with respect to the longitudinal

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further particle conditions were varied as shown in Table 1. Sample 5 was prepared in the same manner, except that Aerosil 200V was replaced with SYLISIA 350 (having an average particle diameter of 1.8 μm , and manufactured by Fuji SYLISIA CHEMICAL LTD.).

Film Samples 1 through 5, prepared as described above, were subjected to the performance evaluation described below. Table 1 shows the obtained results.

(Evaluation Methods)

•Average Particle Diameter and Aspect Ratio

A particle was observed employing a scan-type electron microscope (capable of a magnification factor of 3,000), and the diameter of a circle circumscribing said particle was determined to be the diameter of said particle. Further, 100 particles in random areas were observed, and the resulting average diameter was designated as the average particle diameter (a primary particle diameter or a secondary particle diameter). Further, the aspect ratio was obtained employing the resulting average diameter.

•Haze

Haze was measured in accordance with ASTM-D1003-52.

•Dynamic Friction Coefficient

The dynamic friction coefficient between the front surface of a film and the reverse surface of another film was

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The surface quality was visually evaluated, based on the standard described below:

- A: unevenness is barely observable on the surface and is at a level which does not cause any problem as a commercial product.
- B: slight unevenness is observed on the surface and is also at a level which causes no problem as a commercial product.
- C: unevenness is clearly observed on many areas on the surface and is at a level which is not viable as a commercial product.

Art Unit: 1773

1. This is a supplemental notice of allowance to the notice dated 9/18/06 to correct a typographical error in the previous Examiner's Amendment and to include a "Brief Description of the Drawing" as authorized by Applicant's Attorney Mr. Marshall Chick on 11/2/06.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Marshall J. Chick on August 28, 2006.

The application has been amended as follows:

Claim 13 has been amended as follows:

At line 8, the phrase "measured in accordance with JIS-K-7125 (1987) between a facing material and a sliding material, wherein a front face of the cellulose ester film is the facing material and a reverse face of a second cellulose ester film of the same composition is the sliding material" has been inserted after "coefficient of 0.3 to 1.5".

Claim 14 has been amended as follows:

At line 21, the phrase "measured in accordance with JIS-K-7125 (1987) between a facing material and a sliding material, wherein a front face of the cellulose ester film is the facing material and a reverse face of a second cellulose ester film of the same composition is the sliding material" has been inserted after "dynamic friction coefficient of 0.3 to 1.5".

Additionally, Claim 1 has been amended as follows:

At line 8, the term "ester" has been inserted after "the cellulose".

Art Unit: 1773

Authorization for this examiner's amendment was given in a telephone interview with Mr. Marshall J. Chick on November 2, 2006.

The application has been amended as follows:

On page 10 of the specification, after the first paragraph and before "DETAILED DESCRIPTION OF THE PRESENT INVENTION", please insert:

"BRIEF DESCRIPTION OF THE DRAWING"

"Figure 1 is an example of a liquid crystal display of the present invention."

3. The following is an examiner's statement of reasons for allowance: the closest references Takada et al '926 and Takada et al '006 have been obviated by the timely filing of a proper terminal disclaimer. Additionally, the prior art does not teach or render obvious a cellulose ester film comprising particles having an aspect ratio of 2 to 7 and a dynamic friction coefficient of 0.3 to 1.5 as instantly claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.